REMARKS

Claims 5-14 are pending in the application. Favorable reconsideration is respectfully requested.

I. The Claims are Patentable

Claims 5-12 were rejected in view of Zhao and Ericsson et al. (U.S. 5,689,592) for the reasons set forth on pages 2 and 3 of the Office Action. Applicants contend that Claims 5-12 clearly define over the cited references, and in view of the following remarks, favorable reconsideration of the rejection under 35 U.S.C. '103 is requested.

As described in the specification, the disclosed invention is directed to a method and a hardware architecture for calculating the DCT on a plurality of blocks of pixels, in parallel, which provides for the scalability of the size of the blocks of pixels.

Independent method Claims 5 and 8 at least include defining first subdivision blocks as range blocks, having a fractional and scalable size $N/2^i*N/2^i$, where i is an integer; and calculating, in parallel, the DCT of 2^i range blocks of a domain block. Similarly, independent apparatus Claims 9, 12 and 13 at least include means/unit to define first subdivision blocks as range blocks, having a fractional and scalable size $N/2^i*N/2^i$, where i is an integer; and means/unit to calculate in parallel, the DCT of 2^i range blocks of a domain block.

It is these combinations of features which are not fairly taught or suggested in the cited references and which patentably define over the cited references.

The Examiner continues to rely on the Zhao article as allegedly disclosing various features of the claimed method and apparatus. On page 3 of the Office Action, the Examiner asserts that Zhao teaches the use of fractional and scalable range blocks. However, in contrast, on page 2 of the Office Action, the Examiner's asserts that one of ordinary skill in the art could make the range blocks of Zhao scalable. Furthermore, the Examiner comments that "the specification is almost identical to Zhaos paper."

The Examiner's characterization of the Zhao reference is puzzling. Both the Zhao reference and the present invention are directed to image compression based on fractal coding and discrete cosine transform (DCT). Thus, of course there is some commonality between the descriptions. However, Applicants are not merely claiming the known approach of calculating a DCT for an image divided into range blocks and domain blocks, as discussed in Zhao. Applicants are claiming a method and a hardware architecture for calculating the DCT on a plurality of fractional and scalable range blocks of a domain block, which is nowhere discussed, taught or even considered in the Zhao paper. Indeed, there is no disclosure or teaching of any scalable DCT processing feature in Zhao. Moreover, Applicants are claiming the parallel calculation of the DCT of such scalable range blocks, which is also nowhere discussed, taught or considered in the Zhao paper.

As previously discussed, nothing in Ericsson et al. is suggestive of the method and relative "scalable" architecture for parallel calculation of the DCT of blocks of pixels of different size and compression characteristics of

the present invention. In other words, nothing in Ericsson et al. makes up for the deficiencies of the Zhao reference as discussed above.

As the Examiner should be aware, to establish a prima facie case of obviousness, the prior art references must teach or suggest all the claim features.

There is simply no teaching or suggestion in the cited references to provide the combination of features as claimed. Accordingly, for at least the reasons given above, Applicants maintain that the cited references do not disclose or fairly suggest the invention as set forth in Claims 5, 8, 9, 12 and 13. Furthermore, no proper modification of the teachings of these references could result in the invention as claimed. Thus, the rejection under 35 U.S.C. '103(a) should be withdrawn.

It is submitted that the independent claims are patentable over the prior art. In view of the patentability of the independent claims, it is submitted that their dependent claims, which recite yet further distinguishing features are also patentable over the cited references for at least the reasons set forth above. Accordingly, these dependent claims require no further discussion herein.

II. Conclusion

In view of the foregoing remarks, it is respectfully submitted that the present application is in condition for allowance. An early notice thereof is earnestly solicited. If, after reviewing this Response, there are any remaining informalities which need to be resolved before the application

can be passed to issue, the Examiner is invited and respectfully requested to contact the undersigned by telephone in order to resolve such informalities.

Respectfully submitted,

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: ASSISTANT COMMISSIONER FOR PATENTS, WASHINGTON, D.C. 20231, on this 13th day of March, 2003.